

# Moran Cerf

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## ACADEMIC EMPLOYMENT

2023-present: Co-Director, Center for Advanced Technology and Human Performance, **Columbia University**  
2023-present: Director, *Executive Education*, Columbia Business School, **Columbia University**  
2023-present: Adjunct Professor of Marketing, Columbia Business School, **Columbia University**  
2017-2022: Associate Professor, Kellogg School of Management, **Northwestern University**  
2013-2017: Assistant Professor, Kellogg School of Management, **Northwestern University**

### Visiting Positions and affiliations

2007-present: *Alfred P. Sloan* Professor of Screenwriting, **American Film Institute**  
2013-2017: Associate Professor, Institute for Complexity, **Northwestern University**  
2018-2019: Visiting Professor, Center for Advanced Hindsight, **Duke University**  
2018: Visiting Associate Professor, Smurfit Business School, **University College of Dublin**  
2013-2018: Visiting Associate Professor, Department of Neurosurgery, **NorthShore Medical Center**  
2016: Visiting Associate Professor, Media Lab, **MIT**  
2013: Visiting Assistant Professor, Recanati School of Business, **Tel-Aviv University**  
2013: Visiting Assistant Professor, Stern School of Business, **NYU**  
2010-2013: Post-doctoral fellow, Stern School of Business, **NYU**  
2009-2011: Post-doctoral fellow, Department of Neurosurgery, **UCLA**

## EDUCATION

2005-2009: PhD, Neuroscience, **California Institute of Technology**  
2001: MA, Philosophy, **Tel-Aviv University**  
1998-2000: BSc., Physics, **Tel-Aviv University**

## AWARDS and GRANTS

2024: SAGE fellow, **Sage Center for the Study of the Mind** \$4,000  
2023: Digital Futures Initiative Grant, **Columbia University** (*with Sandra Matz, Heinrich Peters*) \$5,000  
2022: Founder Development Grant, **Microsoft** (*with Nervanix*) \$80,000  
2021: Tamer Center Climate Change and Business Program Grant, **Columbia University**  
2021: Most Influential Article in 2020, **Academy of Management** (for *Shane et al., 2020*)  
2020: Foundation Grant, **Carnegie Corporation** \$500,000  
2020: Research Seed Funding, **Carnegie Corporation** (*with Nuclear Threats Initiative*) \$2,000  
2020: U7+ Climate Conference Representative, **Northwestern University**  
2020: Most Cited Article in 2019, **Journal of Neurophysiology** (for *Herero et al., 2019*)  
2020: DeepLens Educational Grant, **Amazon** \$500  
2019: Research Innovation Grant, **Amazon** \$30,000  
2019: Greatest Strategic Impact, **DIA** (*with BestFit*)  
2019: AI for Accessibility Challenge, **Microsoft** (*with AKQA*) \$1,250,000  
2019: Consciousness Research Award, **Mind, Science Foundation** (*finalist*)  
2018: Consciousness Research Award, **Mind, Science Foundation** (*finalist*)  
2018: Chicagoan Award, **City of Chicago**  
2018: Education Foundation Visiting Professor Program, **Association of National Advertisers**  
2018: Most Relevant Publications in 2017, **NMSBA** (for *Barnett and Cerf, 2017*)  
2017: Distinguished Speaker, **Price College of Business, Oklahoma University**  
2016: 40 Best Professors Below 40, **Poets and Quants**  
2016: McManus Chair Research Award, **Northwestern University** \$40,000  
2016: Extraordinary Minds Award, **Templeton Foundation** \$10,000  
2016: Best Research Proposal, **Association for Consumer Research** \$1,000  
2016: Institute for Complexity Seed Award, **Northwestern University** \$2,000  
2015: McManus Chair Research Award, **Northwestern University** \$40,000  
2015: Searle Fellow, **Northwestern Center for Advancing Learning and Teaching**  
2015: Equipment Grant, **NSF** \$20,000  
2014: Excellence in Research, **Northwestern University annual research report**  
2014: Thomas A. Edison Marketing Award, **Edison Awards** (*finalist*)  
2012-2013: Instructional Improvement Grant, **UCLA** \$40,000  
2009-2012: R21 ("The Neural Correlates of Effective Messages"), **NIH** (*supported by the grant*) \$1,100,000

## TEACHING (*teaching evaluations are shown when available; adjusted to 100-point score*)

2023: Marketing, Columbia Business School, **Columbia University** (score: 98.4%)  
2022: Fundamentals of Neuroscience: Cognitive Neuroscience, **Northwestern University**  
2021: Fundamentals of Neuroscience: Cognitive Neuroscience, **Northwestern University**  
2019: Blockchain Applications in Business (*executive education*), **Northwestern University** (score: 98.3%)

2018: Using Neuroscience in Business ( <i>executive education</i> ), <b>Northwestern University</b>	(score: 84-98.4%)
2014-2018: Marketing Management, Kellogg School of Management, <b>Northwestern University</b>	(score: 94.2%)
2013: Consumer Neuroscience, Stern School of Business, <b>NYU</b>	(score: 90%)
2012: Neuroscience experiments design/analysis, Stern School of Business, <b>NYU</b>	

## PROFESSIONAL SERVICES

2010-present: President, **Human Intracranial Research Foundation**  
 2021: Conference Program Committee, **Association for Consumer Research**  
 2018-2020: Advisory Board, **Chicago AI**  
 2018: Chair, Network Theory Workshop, **Northwestern University**  
 2013-2017: Director of Neuroscience Workgroup, Institute for Complexity, **Northwestern University**  
 2016: Chair, **NMBSA (U.S. Chapter)**  
 2015: Co-Chair, Program Committee, **Society for Affective Science**  
 2014: Director, **Society for Neuroscience (Chicago Chapter)**

### Member

**Neuroscience:** Association for the Scientific Study of Consciousness, Cognitive Neuroscience Society, New York Academy of Sciences, Social and Affective Neuroscience Society, Society for Neuroscience, Vision Science Society  
**Business:** American Marketing Association, Association for Consumer Research, Institute for Operations Research and Management Sciences, Neuro-Marketing Science and Business Association, Society for Consumer Psychology

### Reviewer

**Neuroscience:** Cortex, Journal of Nature and Science of Sleep, Journal of Neuroscience, Journal of Vision, Vision Research, Neural Information Processing Systems (NIPS), Neural Networks, Social Cognitive and Affective Neuroscience, Cognitive Neurodynamics, Journal of Neuroscience and Neuroeconomics **Business:** Marketing Science, Association for Consumer Research, Journal of Consumer Psychology, Journal of Consumer Research, Journal of Marketing Research, California Management Review, Harvard University Press **Psychology:** Perception, Social Influence, Perception **Engineering:** Journal of Computers and Applications European Association for Computer Graphics, IEEE Transactions of Patterns Analysis and Machine Intelligence (PAMI), Lecture Notes in Computer Sciences **General:** Proceedings of the Library of Science (PLoS), Scientific Reports, Nature Human Behavior, Nature

### Mentor

#### Columbia University

**Graduate Students:** Heinrich Peters, Edden Bar Jacoby, Brandon Freiberg

#### Northwestern University

**Post-doctoral fellows:** Rubi Hammer, *PhD* **Clinical Rotations:** Leonard Louis Sokol, *MD* **Graduate Students (Neuroscience):** Samuel Barnet, *PhD* **Graduate Students (Business):** Pantelis Loupos, *PhD* (now: Professor, UC Davis), Alex Nathan, *PhD*, Matejas Mackin, Andres Nunez, *PhD* (now: Post-doctoral fellow, MIT) **Graduate Students (Engineering):** Liu Liu  
**Rotation (Neuroscience):** Kevin Wilkins, *PhD* (now: Post-doctoral fellow, Stanford), Mariah Meyer, *PhD*, Jay Kim, Nirvik Sinha  
**Rotation Students (Business):** Scott Payne, Ryan Burke, Jenny Cooper (now: YouTube), Aviram Berg, Jon Levy, Hope White, Hannah Lee, Andrew Zbihley, Leah Broger (now: Caltech), Stephanie Perez, Riya Sirdeshmukh, Ian Shi, Ronen Zilberman, Megan Purdy, Haleigh Wright **Masters Students:** Klavdia Zemlianova, *MA*, Chris Rose, *MA*, (now: Graduate student, NYU) **High School Students Rotation:** Kirstin Johnson, Gloria Choi, Jake Cooley, Devraj Thakkar, Raz Allon (now: UPenn)

#### Media Lab, MIT

**Graduate Students (Engineering):** Xiao Xiao, *PhD*, Judith Amores, *MA*

#### University of Chicago

**Masters Students (Existential Threats):** Cassie Haas

#### NYU

**Graduate Students (Neuroscience):** Richard Farhat, *MA*, Si Ma, *MA*

#### Caltech

**Clinical Rotations:** Michael Mackay, *MD* (now: Cambridge), Nikhil Thiruvengadam, *MD* (now: Stanford), **Graduate Students (Neuroscience):** Paxon Frady, *PhD*, Alex Huth, *PhD* (now: Professor, UT Austin)

#### IIT

**Masters Students:** Siddharth Choubay, Anuj Chopra, Aditya Bansal, Kenneth Shinozuka, Aman Mishra

#### Long Island Jewish Hospital

**Post-doctoral fellows:** Jose Herrero, *PhD* (now: Professor, Long Island Jewish)

## BUSINESS (*conflict of interest and disclosures*)

2022: Expert witness, *Technology company*  
 2016-present: Host and Co-Curator, **PopTech** (*selected by Forbes as "top 5 conferences in the world" in 2018*)  
 2013-present: Co-founder, **ThinkAlike**  
 2016-present: Board member, **X-Trodes, IO, Aladdin Dreamer, Oscillations, EXPLO School, VR Americas**  
 2017-present: Founder, **B3** (Brain, Behavior, Business)  
 2016-2018: Presidential Innovation Fellow, **White House USDS/18F**  
 2016-2017: Brain Trust Member, **Chicago Ideas**  
 2016-2017: Scientific advisor, **CBS** ("Limitless", "Bull")

2016: Scientific advisor, **USA Network** (“Falling Water”, “Mr. Robot”)  
2017: Teacher, **Noble Academy High School**  
2012: U.S. director, **Israel Brain Technologies (IBT)**  
2002-2005: Hacker, **Imperva (NASDAQ: IMPV)**  
2000: Inventor, **Systematic Inventive Thinking (SIT)**  
1998-2000: Hacker, **Check Point (NASDAQ: CHKP)**

1995-1998: Intelligence (soldier), **Israeli Defense Forces**

### Selected Consulting Projects

**Automotive:** Ferrari **Learning:** SS&C, China Ministry of Education, EXPLOR **Entertainment:** Viacom, Cirque du Soleil, XIX, DreamWorks **Finance:** Scotiabank, TransUnion, Citi, JP Morgan, Balderton, Deutsche Bank **Tech:** Amazon, Cisco, Lyft, AKQA **Policy:** Nuclear Threats Initiative, United States Digital Service **Marketing:** Hershey, Coca Cola, Wrigley, Mane **Research:** Nielsen, Ipsos, Milward Brown, Edelman, R/GA **Agriculture:** AGVisorPro **Legal:** Mintz, Levin, Cohn, Ferris, Glovsky and Popeo **Charity:** Founder’s Pledge, Tablora **Sports:** RedBull

### Financial Stakeholder

**Blockchain:** Kraken **Climate:** Bench, One.Five, Skyfri, Universe Energy, EV Biotech, ecoLocked, Paebbl, Normative, Mellizyme, Climate-X, Cling Systems, Rebel Tech, Plentify **Neuroscience:** X-Trodes, BestFit, Nervanix **Entertainment:** Foundation

## **PUBLICATIONS** (*h-index: 26*)

### Journal Papers (*<sup>v</sup>denotes shared first authors*)

1. Sandra Matz, Heinrich Peters, Paul Eastwick, **Moran Cerf**, and Eli Finkel (2024) “Do Large Language Models Understand Verbal Indicators of Romantic Attraction?”, *OSF*
2. Heinrich Peters, **Moran Cerf**, Sandra Matz (2024) “Large Language Models can infer personality from free-form user interactions”, *OSF*
3. Sandra Matz, Jacob Teeny, Sumer Vaid, Heinrich Peters, Gabriella Harari, **Moran Cerf** (2024) “The potential of Generative AI for Personalized Persuasion at Scale”, *Scientific Reports*
4. Heinrich Peters, Sandra Matz, **Moran Cerf** (2023) “Sensory substitution can improve decision-making” *Computers in Human Behavior*
5. **Moran Cerf**, Sandra Matz, Malcolm MacIver (2023) “Participating in a climate futures market increases support for costly climate policies” *Nature Climate Change*
6. Sandra Matz, Jacob Teeny, Sumer S. Vaid, Gabriella Harari, **Moran Cerf** (2023) “The Potential of Generative AI for Personalized Persuasion at Scale” *PsyArXiv*
7. **Moran Cerf**, (2023) “Dream Marketing: A Method for Marketing Communication During Sleep and Dreams” *SSRN* (*Top 10 most downloaded articles, SSRN*)
8. **Moran Cerf**, Sandra Matz, Malcolm MacIver (2023) “Participating in a climate prediction market increases concern about global warming” *Nature Climate Change*
9. Sandra Matz, Ryan Hyon, Elisa C. Baek, Carolyn Parkinson, **Moran Cerf** (2022), “Personality similarity predicts synchronous neural responses in fMRI and EEG data” *Scientific Reports*
10. Gan Wang, **Moran Cerf** (2022), “Brain-Computer Interface using neural network and temporal-spectral features” *Frontiers in Neuroinformatics*
11. Kristen Duke, Wendy Liu, Evan Weingarten, Rebecca W. Hamilton, On Amir, Gil Appel, **Moran Cerf**, Joseph K. Goodman, Andrea C. Morales, Ed O’Brien, Jordi Quoidbach, Monic Sun (2022), “Why don’t Consumers Choose the Experiences they Will Enjoy Most? Insights from the Two-Dimensional Experiential Space (TDES) Model” *Journal of Consumer Psychology* (*Top 10 most downloaded articles, 2022*)
12. Gan Wang, **Moran Cerf** (2022), “Brain-Computer Interface using temporal-spectral features and neural network classifier” *TechRxiv*
13. Brandon Freiberg, **Moran Cerf** (2021), “Single neuron evidence of inattention blindness in humans” *Neuropsychologia*
14. Leonard L. Sokol, Sarah R. Jordan, Allison J. Applebaum, Joshua M. Hauser, Jodi Forlizzi, **Moran Cerf**, Hillary D. Lum (2020) “Social media perceptions of legacy-making: a qualitative analysis” *Palliative Medicine Reports*
15. Sebastiano Massaro, Will Drover, Keith M. Hmieleski, **Moran Cerf** (2020), “Using functional neuroimaging to advance entrepreneurial cognitive research” *Journal of Small Business Management*
16. Leonard L. Sokol, Joshua M. Hauser, Hillary D. Lum, Jodi Forlizzi, **Moran Cerf**, Fan Z. Caprio, Michael J. Young (2020), “Goal-concordant care in the era of advanced stroke therapies” *Journal of Palliative Medicine*
17. Leonard L. Sokol, Hillary D. Lum, Claire J. Creutzfeldt, David Cella, Jodi Forlizzi, **Moran Cerf**, Joshua M. Hauser, Benzi M. Kluger (2020), “Meaning and dignity therapies for psycho-neurology in neuropalliative care: a vision for the future” *Journal of Palliative Medicine*
18. **Moran Cerf**, Sandra Matz, Aviram Berg (2020), “Using Blockchain in Decision-Making that Benefits the Public Good” *Frontiers in Blockchain*
19. Leonard L. Sokol, Michael J. Young, Jack Papparian, Benzi M. Kluger, Hillary D. Lum, Jessica Besbris, Neha M. Kramer, Anthony E. Lang, Alberto J. Espay, Ornella M. Dubaz, Janis M. Miyasaki, Daniel D. Matlock, Tanya Simuni, **Moran Cerf** (2019), “Advance Care Planning in Parkinson’s disease: Ethical Challenges and Future Directions” *Nature Parkinson’s Disease*

20. Jon Levy<sup>v</sup>, Devin Markell, **Moran Cerf**<sup>w</sup> (2019), “Polar Similar: using massive mobile dating data to predict synchronization and alignment in dating preferences” *Frontiers in Psychology: Personality and Social Psychology*
21. Scott Shane, Will Drover, David Clingingsmith, **Moran Cerf** (2019), “Founder passion, neural engagement and informal investor interest in startup pitches: an fMRI study” *Journal of Business Venturing* (*Featured in Wealth Professionals, Business Insider; Most influential article, AOM 2020*)
22. Reuven Hammer, **Moran Cerf** (2019), “Risk Assessment Under Perceptual Ambiguity and its Impact on Category Learning and Decision-Making” *PsyArXiv*
23. Jose L. Herrero, Simon Khuvis, Erin K. Yeagle, **Moran Cerf**, Ashesh D. Mehta (2018), “Breathing above the Brainstem: Volitional Control and Attentional Modulation in humans” *Journal of Neurophysiology* (*Featured in Quartz; Most cited article, Journal of Neurophysiology 2019*)
24. Samuel Barnett, **Moran Cerf** (2017), “A Ticket for Your Thoughts: Method for Predicting Content Recall and Sales Using Neural Similarity of Moviegoers” *Journal of Consumer Research* (*Featured in New York Post, Inverse, Business Insider, Quartz, Digital Trends, Phys.org, IMDb and over 100 more outlets*)
25. Florian Mormann, Simon J. Kornblith, **Moran Cerf**, Matias J. Ison, Alexander Kraskov, Michelle Tran, Simeon Knieling, Rodrigo Quian Quiroga, Christof Koch, and Itzhak Fried (2017), “Scene-selective coding by single neurons in the human parahippocampal cortex” *Proceedings of the National Academy of Sciences (PNAS)*
26. Avital Mentovich, Aziz Huq, **Moran Cerf** (2015), “The psychology of corporate rights” *Journal of Law and Human Behavior* (*Featured in Slate*)
27. **Moran Cerf**, Eric Greenleaf, Tom Meyvis, Vicki Morwitz (2014), “Using Single-Neuron Recording in Marketing: Opportunities, Challenges, and an Application to Fear Enhancement in Communication” *Journal of Marketing Research* (*Featured in Kellogg Insight*)
28. **Moran Cerf**, Michael MacKay, Christof Koch (2012), “Evidence for two distinct mechanisms directing gaze in natural scenes” *Journal of Vision*
29. Elina Birmingham, **Moran Cerf**, Ralph Adolphs (2011), “Comparing social attention in autism and amygdala lesions: effects of stimulus and task condition” *Social Neuroscience*
30. Florian Mormann, Julian Dubois, Simon Kornblith, Milica Milsavljevic, **Moran Cerf**, Matias Ison, Naotsugu Tsuchiya, Alexander Kraskov, Rodrigo Quian Quiroga, Ralph Adolphs, Itzhak Fried, Christof Koch (2011), “A category-specific response to animals in the right human amygdala” *Nature Neuroscience* (*Featured in Wired*)
31. Matias Ison, Florian Mormann, **Moran Cerf**, Christof Koch, Itzhak Fried, Rodrigo Quian Quiroga (2011), “Selectivity of Pyramidal cells and interneurons in the human medial temporal lobe” *Journal of Neurophysiology*
32. **Moran Cerf**, Nikhil Thiruvengadam, Florian Mormann, Alexander Kraskov, Rodrigo Quian Quiroga, Christof Koch, Itzhak Fried (2010), “On-line, voluntary control of human temporal lobe neurons” *Nature* (*Featured in over 2,000 outlets, including NY Times, NPR, Time, BBC, The Scientist, and more. Post-reviewed rating by “Faculty of 1000”: Exceptional*)
33. Carlos Pedreira, Florian Mormann, Alexander Kraskov, **Moran Cerf**, Itzhak Fried, Christof Koch, Rodrigo Quian Quiroga (2010), “Responses of human medial temporal lobe neurons are modulated by stimulus repetition” *Journal of Neurophysiology*
34. **Moran Cerf**, Paxon Frady, Christof Koch (2009), “Faces and text attract gaze independent of the task: Experimental data and computer model” *Journal of Vision*
35. Florian Mormann, Simon Kornblith, Rodrigo Quian Quiroga, Alexander Kraskov, **Moran Cerf**, Itzhak Fried, Christof Koch (2008), “Latency and selectivity of single neurons indicate hierarchical processing in the human medial temporal lobe” *Journal of Neuroscience*
36. Milica Milosavljevic<sup>v</sup>, **Moran Cerf**<sup>w</sup> (2008), “What matters is attention not intention: Insights from computational neuroscience of vision” *International Journal of Advertising* (*Featured in CNN and FastCompany*)
37. Wolfgang Einhäuser, Frank Schumann, Johannes Vockeroth, Klaus Bartl, **Moran Cerf**, Jonathan Harel, Erich Schneider, Peter König (2008), “Distinct roles for eye and head movements in selecting salient image parts during natural exploration” *Annals. of the New York Academy of Sciences*
38. **Moran Cerf**, Jonathan Harel, Alex Huth, Christof Koch (2008), “Decoding what people see from where they look: Predicting visual stimuli from scanpaths” *Lecture Notes in Artificial Intelligence (LNAI)*
39. **Moran Cerf**, Dan R. Cleary, Rob J. Peters, Wolfgang Einhäuser, Christof Koch (2007), “Observers are consistent when rating image conspicuity” *Vision Research*
40. **Moran Cerf**, Jonathan Harel, Wolfgang Einhäuser, Christof Koch (2007), “Predicting human gaze using low-level saliency combined with face detection” *Advances in Neural Information Processing Systems (NIPS)*

#### Review Papers and Reviewed Proceedings

41. **Moran Cerf** and Adam Waytz (2023), “If you worry about Humanity, you should be scared of humans more than of AI” *Bulletin of the Atomic Scientists*
42. **Moran Cerf** (2023), “How many times do you need to view content before it is registered in your memory” *Advances in Consumer Research* (*forthcoming*)
43. Sebastiano Massaro, Will Drover, **Moran Cerf** (2020), “Founder gender and investor pitch assessments: an fMRI multivariate pattern analysis investigation” *Academy of Management (AOM)*
44. Samuel Barnett, Chris Rose, Aaron Robinson, Andrés Campero, Ronen Zilberman, **Moran Cerf** (2018), “Trust the polls? Neural and recall responses provide alternative predictors of political outcomes” *Advances in Consumer Research*
45. Samuel Barnett, **Moran Cerf** (2017), “Few and far between: identifying measures of advertising visuals that correlate with neural engagement and sales” *Advances in Consumer Research*

46. Will Drover, Sebastiano Massaro, **Moran Cerf**, Lowell Busenitz (2017), “Neuro-Entrepreneurship” *Academy of Management*
47. Samuel Barnett, Hope White, **Moran Cerf** (2016), “Keep it simple, stimuli: brain-vetted elements of movie trailers predict opening weekend ticket sales” *Advances in Consumer Research*
48. Samuel Barnett, **Moran Cerf** (2015), “Connecting on movie night? neural measures of engagement differ by gender” *Advances in Consumer Research*
49. Guy Hoffman, **Moran Cerf** (2015), “The dark sides of robot social awareness” *IEEE CIS Newsletter of the Autonomous Mental Development Technical Committee*
50. Wolfgang Einhäuser, Frank Schumann, Johannes Vockeroth, Klaus Bartl, **Moran Cerf**, Jonathan Harel, Christof Koch, Erich Schneider, Peter König (2008), “True and spurious face detections attract attention during free exploration” *Proceedings of the International Workshop on Attention and Performance in Computational Vision (WAPCV)*
51. **Moran Cerf**, E. Paxon Frady, Christof Koch (2008), “Using semantic content as cues for better scanpath prediction” *Proceedings of the symposium on Eye tracking research & applications (ETRA)*

### **Book Chapters**

52. **Moran Cerf** (2024), “On the Ways by Which AI Can Revolutionize the Usage of Biometrics in Business” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
53. **Moran Cerf** (2024), “Using Neuroscience and Biometrics in Individuals and Organizations” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
54. **Moran Cerf**, Miguel Brendl (2024), “Using Sensory Substitutions to Make Better Business Decisions (or How Sensory Devices Connected to Our Body Can Help Us Outperform AI and Common Data Analytics)” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
55. Omer Granoviter, **Moran Cerf**, Yael Hanein (2024), “Leaked Expressions Captured with Wearable High-Resolution Facial Electromyography” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
56. **Moran Cerf** (2024), “The Human Affair with Data, the Challenges It Creates, Ways to Solve These Challenges, and Future Outlook” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
57. **Moran Cerf**, Uriel Appel (2024), “Using Biometrics in Healthcare Management and Diagnostics” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
58. Luiz Moutinho, **Moran Cerf** (2024), “The Future of Neuroscience and Biometrics in Business” *Biometrics and Neuroscience Research in Business and Management*, Editors: Luis Moutinho, Moran Cerf, Publisher: de Gruyter
59. **Moran Cerf**, Sandra Matz (2022), “Psychology of Technology: where the future might take us” *Psychology of Technology*, Editor: Sandra Matz, Publisher: American Psychological Association
60. **Moran Cerf** (2019), “Using neuroscience to assess brands” *Branding in a Hyper-connected world*, Editors: Alice Tybout, Tim Calkins, Publisher: Wiley
61. Sandra Matz, Guy Rolnik, **Moran Cerf** (2018), “Solutions to the Threats of Digital Monopolies” *Digital Platforms and Concentration*, Editor: Guy Rolnik, Publisher: University of Chicago Press
62. Avital Mentovich, **Moran Cerf** (2014), “A psychological perspective on punishing corporate entities” *Regulating Corporate Criminal Liability*, Editors: Dominik Brodowski, Manuel Espinoza, Publisher: Elsevier
63. **Moran Cerf**, Hagar Gelbard-Sagiv, Itzhak Fried (2013), “Studying thoughts and deliberations using single-neuron recordings in humans” *Single neuron studies of the human brain*, Editors: Itzhak Fried, Moran Cerf, Ueli Rutishauser, Gabriel Kreiman, Publisher: MIT Press
64. Ueli Rutishauser, **Moran Cerf**, Gabriel Kreiman (2013), “Data analysis techniques for human microwire recordings: spike detection and sorting, decoding, relation between units and local field potentials” *Single neuron studies of the human brain*, Editors: Itzhak Fried, Moran Cerf, Ueli Rutishauser, Gabriel Kreiman, Publisher: MIT Press
65. **Moran Cerf**, Michael Mackay (2011), “Studying consciousness using direct recording from single neurons in the human brain” *Research and Perspective in Neuroscience*, Editors Stanislas Dehaene and Yves Christien. Publisher: Springer
66. **Moran Cerf** (2011), “Projecting thoughts to an external display using single-neuron recordings in the human brain” *Seeing with Eyes closed*, Editors: Ivana Franke and Ida Momennejad. Association of Neuroesthetics

### **Books**

67. Luis Moutinho, **Moran Cerf** (2024), “Biometrics and Neuroscience Research in Business and Management” *de Gruyter*
68. **Moran Cerf** (2023), “Brain Imaging: An Illustrated Guide to the Future of Neuroscience” *Lulu Press*
69. **Moran Cerf**, Manuel Garcia Garcia (2017), “Consumer Neuroscience” *MIT Press*
70. **Moran Cerf**, Robert Wolcott (2017), “Foresight” *Northwestern University Press*
71. Itzhak Fried, **Moran Cerf** and Gabriel Kreiman (2014), “Single neuron studies of the human brain” *MIT Press*
72. **Moran Cerf** (2009), “Competition and Attention in the human brain” *Lambert Press*

### **Non-Academic Publication (peer-reviewed)**

#### **Patents**

73. Adam Hall, Stephen Kenton, Joseph van Harken, **Moran Cerf** (2021), “Applying neuro-metrics to the development of learning solutions” *U.S. Patent application no. 17193931*
74. Samuel Barnett, **Moran Cerf** (2015), “Method for measuring engagement” *U.S. Patent no. US20150206174A1*

75. Josh Shachar, Thomas Chen, Leslie Farkas, Winston Wu, Kyle Zimmerman, **Moran Cerf**, Bruce Marx, David Johnson, Laszlo Farkas (2010), “Brain retractor apparatus for measuring and predicting electrophysiological parameters” *U.S. Patent no. US8133172B2*
76. Josh Shachar, Thomas Chen, Leslie Farkas, Winston Wu, Kyle Zimmerman, **Moran Cerf**, Bruce Marx, David Johnson, Laszlo Farkas (2010), “Magnetic breather pump for delivery of Chemotherapeutic agents into the brain” *U.S. Patent no. US20100160737A1*
77. **Moran Cerf**, Christof Koch (2008), “Automatic prediction of human gaze in visuals by localizing high-level elements” *U.S. Provisional Patent application no. CIT-5033-P*

### Cases

78. **Moran Cerf** (2015), “Tivo: Segmentation Analytics” Kellogg School of Management, **Northwestern University**

### Clinicals Trials

79. **Moran Cerf** (2023), “Evaluation of Accuracy and Consistency of the X-Trodes System”, Identifier: NCT05722639

### Security Vulnerabilities

80. **Moran Cerf**, Amichai Shulman (2005), “File access and Denial of Service vulnerabilities in business object ‘Crystal report’” *Bugtraq. ID: 10260*.
81. **Moran Cerf**, Amichai Shulman (2004), “How safe is it out there?” *Security Focus*
82. **Moran Cerf**, Amichai Shulman (2004), “SuperVeda penetration test” *Security Focus*

### Publications Under Review

83. **Moran Cerf**, Eric Greenleaf, Vicki Morwitz, Tom Meyvis, “Visual distractions as a measure of engagement in moving images”
84. **Moran Cerf**, Craig Weiss, Andrea S. Cuamatzi-Castelan, Christopher L. Drake “Inducing conscious control over dream content using neural stimulation”
85. **Moran Cerf**, Jenny Copper “Predicting YouTube Ad Leaderboard using neural measures of engagement” (*revise and resubmit, round 1, Journal of Consumer Research*)
86. Si Ma, **Moran Cerf**, “Risk Assessment Under Perceptual Ambiguity and its Impact on Category Learning and Decision-Making” (*revise and resubmit, round 1, Humanities and Social Sciences Communications*)
87. **Moran Cerf**, “Dream marketing: a method for marketing communication during sleep and dreams”
88. **Moran Cerf**, Miguel Brendl, “A novel method for improving marketing decision-making using sensory substitution” *Journal of Marketing*
89. **Moran Cerf**, Joseph Van Harken, Adam Hall “Using artificial intelligence and machine learning to scale the application of neuro-analytics in the content design process” *Interservice/Industry Training Simulation and Education Conference*
90. Samuel Barnett, Robin Nusslock, **Moran Cerf**, “Suppression of Posterior Alpha Oscillations Reflects Enhanced Attention to Movie Trailers”
91. Samuel B. Barnett, Klavdia Zemlianova, Xiao Xiao, **Moran Cerf**, “Sharing Notes: Neural Similarity During Musical Performances Varies by Consumer Expertise and Format”
92. Pantelis Loupos, **Moran Cerf**, “The Power of Social Networks in Predicting Customer Behavior During Early Usage Stages”
93. Pantelis Loupos, Noshir Contractor, Moran Cerf, “Predicting Network Structure Virality in Mobile Financial Applications”

### Selected INVITED TALKS

#### Business

- Behavior, Energy, and Climate Change, **Berkeley**, CA 2023
- “Founder gender and investor pitch assessments: an fMRI multivariate pattern analysis investigation”, Academy of Management, Boston, MA 2020
- **Facultad de Ciencias Economicas**, Guatemala City, Guatemala 2020
- Graduate School of Business, **Stanford**, CA 2019
- **National University of Singapore**, Singapore 2019
- “New decisions tools using complex heuristics in marketing and analytics”, Choice Symposium, Chesapeake Bay, MD 2019
- “Sensory substitution in Marketing, Theory and Practice in Marketing”, **Columbia University**, NY 2019
- Network Theory Workshop, Kellogg School of Management, **Northwestern University**, Chicago, IL 2018 (*organizer*)
- **Bilgi University**, Istanbul, Turkey 2018
- Chicago Booth Business School, **Chicago University**, IL 2018
- Smurfit Business School, **University College of Dublin**, Dublin, Ireland 2018
- Alberta School of Business, **University of Alberta**, Edmonton, Alberta, Canada 2018
- Harvard Business School, **Harvard**, Cambridge, MA 2018
- **Erasmus University**, Rotterdam, Netherland 2018
- “Quantifying the likelihood of advertisement skipping using neuroscience”, Digital Marketing and Machine Learning, **CMU**, Pittsburgh, PA 2018
- “Using social Networks to predict noncustomer behavior in financial systems”, Digital Marketing and Machine Learning, **CMU**, Pittsburgh, PA 2018
- “Visual Distractions as a Measure of Engagement”, Marketing Science, Philadelphia, PA 2018
- “Neuro-Entrepreneurship”, **Academy of Management**, Atlanta, GA 2017
- **The New School**, New York, NY 2017
- Wharton, **University of Pennsylvania**, Philadelphia, PA 2017
- Price College of Business, **Oklahoma University**, Norman, OK 2017
- Sloan School of Management, **MIT**, Cambridge, MA 2017
- ASEAN Marketing Summit, Indonesia 2016 (keynote)
- “Neural Measures of Engagement Predict Negative Preferences in Live Political Debates”, ISDN, Philadelphia, PA 2016
- “Risk assessment under perceptual ambiguity and its impact on decision-making and visual expertise”, ISDN, Philadelphia, PA 2016

- “The psychology of corporate criminal liability”, Workshop on Criminal Law, Köln, Germany 2015
- “Neurons, Inc.: Using the brain in marketing”, Marketing Science Institute, New York, NY 2014
- “Predicting the choice of a subject before it was made”, Interdisciplinary Symposium on Decision Neuroscience, Philadelphia, PA 2013
- Fuqua School of Business, **Duke University**, Durham, NC 2015
- Marketing Management Summit, Berlin, Germany 2015
- Kellogg Innovation Network, Kellogg School of Management, **Northwestern University**, Chicago, IL 2015
- “Neural Application to Fear in Communication”, Maastricht, Netherlands 2015
- “Value Creation in a Changing Customer Environment”, Köln, Germany 2015
- Design Expo, Chicago, IL 2015
- Market Research for Product Innovation Summit, Chicago, IL 2014
- Marketing Science Institute (MSI), Chicago, IL 2014
- Nielsen, Chicago, IL 2014
- Market Research for Product Innovation Summit, Chicago, IL 2014
- Fox School of Business, **Temple University**, Philadelphia, PA 2013
- Kellogg School of Management, **Northwestern University**, Evanston, IL 2012
- Wharton, **University of Pennsylvania**, Philadelphia, PA 2012
- University of California, **Berkeley**, CA 2012
- **Tel-Aviv University**, Tel-Aviv, Israel 2012
- **Johns Hopkins University**, Baltimore, MD 2012
- **Hebrew University of Jerusalem**, Jerusalem, Israel 2012
- **UCSD**, San Diego, CA 2012
- **Technion**, Haifa, Israel 2012
- **The Interdisciplinary Center**, Herzliya, Israel 2012
- **Erasmus University**, Rotterdam, Netherland 2012
- “Experiencing and evaluating in the brain” (*special session; chair*), Association of Consumer Research, Vancouver, Canada 2012
- “Reading the mind of the consumer: methods in consumer neuroscience” (*roundtable*), Association of Consumer Research, Vancouver, Canada 2012
- “Single-neuron correlates of emotion regulation in humans”, Society for Consumer Psychology, International Conference, Florence, Italy 2012
- “Single-neuron correlates of emotion regulation in humans”, Marketing Science, Boston, MA 2012

## Neuroscience

- “Single neuron evidence of Inattentive Blindness in humans”, Association for Psychological Science (APS), *virtual*, 2021
- Society for Neuroscience, San Diego, CA 2016
- Institute of Personality and Social Research, **Berkeley**, Berkeley, CA 2015 (*keynote*)
- “Single neuron correlates of emotion regulation in humans”, Society for Affective Science, Oakland, CA 2015
- “Single neuron correlates of emotion regulation in natural sensory content”, Human Single Unit, **Johns Hopkins**, Baltimore, MD 2014
- Media Lab, **MIT**, MA 2014
- International Society for Neurofeedback, San Diego, CA 2014 (*keynote*)
- **Northeastern University**, Boston, MA 2013
- **Massachusetts General Hospital**, Boston, MA 2013
- **Zhejiang University**, Hangzhou, China 2011 (*keynote*)
- “Voluntary control of single neuron in humans”, Single neuron studies of the human brain, Stern School of Business, **NYU**, New York, NY 2011
- “Single-neuron correlates of emotion regulation”, Single neuron studies of the human brain, Stern School of Business, **NYU**, New York, NY 2011
- “Real-time decoding of neural spikes”, Single neuron studies of the human brain, Stern School of Business, **NYU**, New York, NY 2011
- “How many minds are there in your brain?”, Towards a science of consciousness, Stockholm, Sweden 2011
- “Neural correlates of emotion regulation in the human brain”, Cognitive Neuroscience Society (CNS), San Francisco, CA 2010
- **Princeton University**, Princeton, NJ 2010
- **University College of London**, London, England 2010
- **Harvard**, Boston, MA 2010
- “There’s plenty of time at the bottom: pre-saccade time is generated as a saliency-decision interplay”, Vision Sciences Society (VSS), Naples, FL 2010
- “Projecting thoughts using the decoded activity of single neurons in the human brain”, Towards a Science of Consciousness, Tucson, AZ 2010
- “On-line voluntary control of single neurons by human thought”, Society for Neuroscience (SfN), San Diego, CA 2010
- **New York University**, New York, NY 2009
- “The role of amygdala in orienting attention to eyes within complex social scenes”, Vision Sciences Society (VSS), Naples, FL 2009
- “An implantable magnetic breather pump for biological agents in malignant gliomas”, Neuro Oncology, Yokohama, Japan 2009
- “Single neurons in the human MTL during visual working memory and rapid visual presentation”, Society for Neuroscience (SfN), Chicago, IL 2008
- “Decoding what people see from where they look”, Workshop on Attention and Performance in Computer Vision (WAPCV), Santorini, Greece 2008
- “Subjects’ inability to avoid looking at faces suggests bottom-up attention allocation mechanism”, Society for Neuroscience (SfN), Chicago, IL 2008
- “Conscious control of a single neuron in the human MTL using imagery and visual feedback”, Society for Neuroscience (SfN), Washington D.C. 2007
- “Dynamics of selective single neurons in the human MTL in a visual working memory task”, Society for Neuroscience (SfN), San Diego, CA 2007
- “Eye tracking to social scenes: comparisons between amygdala lesions and autism”, Cognitive Neuroscience Society (CNS), San Francisco, CA 2007

## Popular (*over 500 people*)

- TEDxGateway, Mumbai, India 2023 (*13<sup>th</sup> TED talk; most TED talks by an individual, worldwide*)
- Economic Times Marketing and CX Leaders’ Summit, Mumbai, India 2022
- TEDxXIMB, Orissa, India 2021
- TEDxNaperville, Naperville, IL 2018, 2019, 2020
- TEDxSalon, Naperville, IL 2020
- TEDxAstonUni, Birmingham, England 2020
- Les Napoleons, Paris, France 2020 (*keynote*)
- World Marketing Summit, Rome, Italy 2019 (*keynote*)
- World Marketing Summit, Harrogate, England, 2019 (*keynote*)
- Fast Forward Forum, Venice, Italy 2019
- Unfinished, Bucharest, Romania 2019
- FastCompany European Innovation, Milan, Italy 2019
- TEDx@Porto, Porto, Portugal 2019
- eTail, Palm Desert, CA 2019 (*keynote*)
- UNESCO, Paris, France 2019
- World Marketing Summit, Istanbul, Turkey 2018 (*keynote*)
- TEDxChicago, Chicago, IL 2018
- DMEXCO, Köln, Germany 2018
- Viva Technology, Paris, France 2018
- Talks@Google, New York, NY 2018
- PopTech, Camden, ME 2012, 2013, 2015-2019, 2022 (*host*)

- World Marketing Summit, Toronto, Canada 2017 (*keynote*)
- Mind Science Foundation, San Antonio, TX 2017
- Singularity University Summit, San Francisco, CA 2017 (*keynote*)
- Cannes Lions, Cannes, France 2017
- USI, Paris, France 2017, 2018
- TEDxAix, Aix-en-Provence, France 2015, 2017
- Comicon, New York, NY 2016, 2017
- DIGIT.Festival, Sofia, Bulgaria 2016
- China Academy of Arts, Hangzhou, China 2016
- South by SouthWest, Austin, TX 2016
- TED, Vancouver, Canada 2016
- World Marketing Summit, Tokyo, Japan 2016
- New Context Conference, Tokyo, Japan 2015
- B3 Biennale, Frankfurt, Germany 2015
- Raising the Bar, New York, NY 2015
- Rethink Education, New York, NY 2015 (*keynote*)
- International Conference on Cyber Security, Tel-Aviv, Israel 2013-2015, 2018
- Glimpses, Red-Bull annual conference, Los Angeles, CA 2013
- TED-Ed (Technology, Entertainment, Design) 2013
- Google Zeitgeist, London, England 2013
- DLD (Digital Life Design), München, Germany 2012, 2013, 2014, 2015
- WIRED conference, London, England 2013
- World Economic Forum, Davos, Switzerland 2013
- THiNK, Goa, India 2013
- Ministry of Education, Shanghai, China 2011
- Humanity+, New York, NY 2009, 2010
- Mindshare, Los Angeles, CA 2008, 2009, 2010
- Expo Milan, Milan, Italy 2015
- “From Neurons to Behavior”, Media Lab, MIT, Boston, MA 2015 (*most viewed talk in series*)
- “Seeing with eyes closed”, Venice Art Biennale, Venice, Italy 2011
- “The sound of touch”, SIGGRAPH, San Diego, CA 2007

**Selected PRESS** (for complete list see [www.morancerf.com/press](http://www.morancerf.com/press) or contact [press@morancerf.com](mailto:press@morancerf.com))

<b>THE NEW YORKER</b>	• The neuroscience of picking a presidential candidate, 2020.02.03
<b>The New York Times</b>	• Nuclear war could end the world, but what if it's all in our heads?, 2023.08.21 • Will 'Future you' thank 'Today you' for getting married?, 2023.08.09 • Science, 2013.09.23
<b>BUSINESS INSIDER</b>	• A neuroscientist explains why he always picks the 2 <sup>nd</sup> menu item on a list of specials, 2017.07.18 • A neuroscientist who studies decisions reveals the most important choice to make, 2017.07.28 • A neuroscientist says you might be luckier than you think - here's how to find out, 2018.01.26 • These are the common traits most likely to net you a match on a dating app, 2020.02.13
<b>Forbes</b>	• How Artificial Intelligence changes us, 2019.01.31 • Hacking Into The Human Brain Could Create Superhumans. Here's How, 2019.02.26 • Profile: Moran Cerf, the brain hacker, 2017.05.19
<b>TIME</b>	• If you're not cybersafe, be ashamed, 2018.08.133 • Five mental tricks that will make you better at money, according to neuroscientists, 2021.01.20
<b>FORTUNE</b>	• There's still time to stop the tech monopoly takeover, 2018.03.08 • Sexist Super Bowl Ads, 2015.01.30 • Why you've already made up your mind about Donald Trump, 2016.01.28
<i>The Atlantic</i>	• Falling Water Is the Dull Endpoint of Conspiracy-Theory TV, 2016.10.13 • The future of fraud-busting, 2016.03.16
<b>FT FINANCIAL TIMES</b>	• 300 nuclear missiles are headed your way. You must respond. What now?, 2023.01.19
<i>The Washington Times</i>	• Brain-chip recipients may soon look at men and think - put it back in a cage, 2019.03.04
<i>Chicago Tribune</i>	• As McDonald's looks forward, “Founder” Movie shows shadowy view of past, 2016.12.13 • How to save your brain for work: Wear the same outfit every day, 2015.05.29
<b>FAST COMPANY</b>	• From bionics to brain chips, hacking humanity has never been more ethically fraught, 2019.07.10 • From a cyborg manifesto to hacking humanity, 2019.07.22
<b>QUARTZ</b>	• How does USA Network follow a surprise hit like “Mr. Robot”?, 2016.10.13 • Our brainwaves can show whether a movie will hit at the box office, neuroscientists say, 2017.03.29 • Neuroscientists have identified how exactly a deep breath changes your mind, 2017.12.23
<b>Medium</b>	• Meet the disruptors, 2022.04.28 • The secret behind the Neuroscience of understanding your customer, 2019.03.24
<b>WIRED</b>	• Our brain is the puppeteer. We are simply agents, 2013.10.17 • Get inside a hacker's mind, 2015.01.01
<b>ELLE</b>	• Elle's 41 most eligible bachelors, 2015.02.14



<b>HUFFPOST</b>	<ul style="list-style-type: none"> <li>• The Post-Virtual World: Invisible Interfaces and Our Experience of Reality, 2017.01.21</li> </ul>
<b>INVERSE</b>	<ul style="list-style-type: none"> <li>• The Science of Watching Movie Trailers Looks a Lot Like Brainwashing, 2017.03.20</li> <li>• A Dream Scientist Explains Why “Falling Water” isn't All Bunk, 2016.10.13</li> </ul>
<b>CNN</b>	<ul style="list-style-type: none"> <li>• Why you're hardwired to be bad at money, 2017.11.07</li> <li>• How close are we to video-recording our dreams, 2018.04.05</li> </ul>
<b>CBS</b>	<ul style="list-style-type: none"> <li>• Northwestern Neuroscientist Researching Brain Chips to Make People Superintelligent, 2019.03.04</li> </ul>
<b>WSJ</b>	<ul style="list-style-type: none"> <li>• How to Improve Cybersecurity? Just Eliminate the Human Factor, 2016.01.18</li> </ul>
<b>LE FIGARO</b>	<ul style="list-style-type: none"> <li>• Communicating with machines through thought, the new obsession of Silicon Valley, 2017.08.02</li> </ul>
<b>NATIONAL POST</b>	<ul style="list-style-type: none"> <li>• This is why one neuroscientist always orders the second item on the specials menu, 2017.08.01</li> </ul>
<b>Inc.</b>	<ul style="list-style-type: none"> <li>• This neuroscientist thinks he knows the future of human evolution. It will surprise and inspire you, 2017.08.22</li> </ul>
<b>BBC</b>	<ul style="list-style-type: none"> <li>• Dream recording device “possible” researcher claims, 2010.10.27</li> </ul>
<b>Bloomberg</b>	<ul style="list-style-type: none"> <li>• Marilyn Monroe photos fuel research for paralyzed patients, 2010.10.27</li> </ul>
<b>npr</b>	<ul style="list-style-type: none"> <li>• The man who could record your dreams, 2012.03.13</li> </ul>
<b>NEW YORK POST</b>	<ul style="list-style-type: none"> <li>• Brain scans can predict how much money movies will make, 2017.03.21</li> </ul>
<b>THE HOLLYWOOD REPORTER</b>	<ul style="list-style-type: none"> <li>• Sundance: filmmakers and neuroscientists talk predictive data and marketing, 2019.01.19</li> </ul>
<b>Harvard Business Review</b>	<ul style="list-style-type: none"> <li>• Neuromarketing: What you need to know, 2019.01.23</li> </ul>